

AMENDMENTS TO THE SPECIFICATION

Please replace the present title with the following amended title:

METHOD FOR CHANGING DATA OF A DATA BLOCK MANAGING IN A FLASH
MEMORY HAVING A MAPPING AREA, A DATA AREA AND AN ALTERNATIVE AREA

Please amend paragraph [17] as follows:

~~Accordingly, according~~ According to an aspect of the present invention, there is provided a method for managing a flash memory. ~~The method comprises:~~ In the method, if changing of data of a data block recorded in a data area is requested, recording the data block having changed data in an alternative area and recording mapping information representing an address of the data block recorded in the alternative area in a mapping area, and if changing of data of the data block recorded in the alternative area is requested, recording a data block having changed data in the data area and deleting the mapping information representing the address recorded in the alternative area from the mapping area. If the mapping information on the data block exists in the mapping area, data is read from the data block in the alternative area, and if the mapping information on the data block does not exist in the mapping area, data is read from the data block at the original address in the data area.

Please delete the paragraph nos. [15], [16] and [27]-[38] in their entirety as follows.

Paragraphs [15] - [16]

~~The present invention further provides a method for leveling the wear of blocks in a flash memory and a system for leveling the wear of blocks in a flash memory, by which an entire~~

~~block of the flash memory is uniformly used and erased without any functional overhead such that the life span of all blocks in the flash memory is the same.~~

~~The present invention further provides a method for managing a file system for a flash memory, a method for updating files in a flash memory, and a file system for a flash memory, by which predetermined data is excluded from a transaction such that the overall performances of the file system for the flash memory are improved.~~

Paragraphs [27]-[38]

~~According to another aspect of the present invention, there is provided a method for leveling the wear of blocks in a flash memory. The method comprises a first step of recording information on the number of electrical erasures of a data block on which electrical erasure is executed after a file system starts, and if the number of electrical erasures of the data block exceeds a predetermined threshold value, a second step of exchanging the data block with a data block having a smaller number of electrical erasures.~~

~~Preferably, the second step comprises determining whether an unused physical block exists, if the unused physical block exists, exchanging the location of the data block with the location of the unused physical block, and if the unused physical block does not exist, exchanging the location of the data block with a physical block having the number of electrical erasures smaller than the number of electrical erasures of the data block.~~

~~Preferably, information on the number of electrical erasure is recorded in a random access memory (RAM).~~

~~According to another aspect of the present invention, there is provided a system for leveling the wear of blocks in a flash memory. The system includes a flash memory in which a data block is recorded, and a wear leveling list in which information on the number of electrical erasures of the data block on which electrical erasure is executed after a file system starts is recorded.~~

~~Preferably, the wear leveling list is recorded in a random access memory (RAM).~~

~~Preferably, information on the number of electrical erasures recently executed on data blocks after a file system starts is recorded in the wear leveling list.~~

~~Preferably, a data block of which the number of electrical erasures exceeds a predetermined threshold value is exchanged with a data block having the smallest number of electrical erasures.~~

~~According to another aspect of the present invention, there is provided a method for managing a file system for a flash memory including a file area and a file allocation table (FAT) area. The method comprises recording information on a cluster of a file recorded in the file area in the FAT area, if changing of the file is requested, recording the changed file in a new cluster, and reflecting information on the new cluster on the information on the cluster recorded in the FAT area.~~

~~According to another aspect of the present invention, there is provided a method for updating files in a flash memory. The method comprises recording information on a next cluster of a file recorded in a data area in an entry of a file allocation table (FAT) area having an entry corresponding to each cluster in the data area, if data updating of a cluster C_{old} included in the~~

~~file is requested, recording updated data in a new cluster C_{new} , and modifying the information on the next cluster so that the new cluster C_{new} is connected to the entry of the FAT area instead of the cluster C_{old} .~~

~~Preferably, the method further comprises recording information on a first cluster of the file in a root directory area.~~

~~Preferably, recording of information on the cluster in the entry of the FAT area is performed by atomic write, and recording of file data in the cluster of the data area is performed by non-atomic write.~~

~~According to another aspect of the present invention, there is provided a flash memory file system. The system includes a data area in which a file comprised of one or more clusters is recorded, a root directory area containing information on a first cluster of the file recorded in the data area, and a file allocation table (FAT) area which contains an entry corresponding to each cluster and in the entry of which information on a next cluster of the file recorded in the data area is recorded. If changing of data of a predetermined cluster forming the file is requested, the changed data is recorded in a new cluster, and information on the new cluster is connected to the information on the cluster of the file recorded in the FAT area.~~